

REMARKS

Applicant, his principal representative in Germany, and the undersigned have carefully reviewed the first Office Action of March 24, 2003 in the above-identified U.S. patent application, together with the prior art cited and relied on by the Examiner in the rejection of the claims. In response, the specification and claims of the application have been amended. It is believed that the claims now pending in the subject application are patentable over the references cited and relied on by the Examiner, taken either singly or in combination. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

The subject application discloses, and claims a method for producing multicolor printing using printing plates that are provided digitally with images and/or print. The printing is accomplished using a printing forme cylinder which receives printing plates. Used printing plates are removed from the printing forme cylinder. These used plates are conducted to a printing plate neutralizing device which is used to remove images and print from used printing plates. The used printing plates are neutralized. Once the plates have been neutralized, they are then coated. The coated printing plates are then secured to an exposure and development unit. New images are printed on the neutralized and coated plates in the exposure and development unit. The printing plates are then re-applied to the printing forme cylinder.

In the first Office Action of March 24, 2003 claims 3, 4 9 and 10 were rejected under 35 U.S.C. 112, first paragraph as containing subject matter not described in the

specification in such a way as to enable one of skill in the art to practice the invention. It was asserted that the registration system and the registration unit were not properly described.

Claims 1-2 and 5-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application No. EP 940 252 to Verlinden in view of U.S. patent No. 6,082,263 to Koguchi and further in view of U.S. patent No. 5,623,877 to Muth. Verlinden was cited as teaching a method of providing multicolor printing, as claimed, with the exception of delivering used printing plates to a neutralizing device. Koguchi was cited as teaching this aspect of the claimed invention. The combination of Verlinden and Koguchi was asserted as teaching all that is claimed in claims 1, 2 and 5-8 with the exception of an off-press exposure apparatus. Muth was cited as providing such an apparatus. With respect to claims 5 and 6, it was asserted that Koguchi teaches an automatic plate changing device. With respect to claims 7 and 8, it was asserted that Verlinden teaches the use of a laser plate neutralization technique. With respect to claims 3, 4, 9 and 10, it was asserted that it would be obvious to one of skill in the art to provide a registration system/registration unit, as claimed.

The specification of the application, as filed, has been amended to correct several minor typographical errors and to remove the term "means." It is believed that these changes, as set forth in the accompanying proposed replacement paragraphs, do not constitute any new matter. Their entry into the specification of the application, as filed, is requested.

Claims 1, and 5 have been amended. Claims 2, 4, 6, 8 and 10 have been cancelled. Claims 3, 7, and 9 are carried forward, as filed. It is believed that the claims now pending in the subject application are patentable over the prior art of record for the following reasons.

Turning initially to the Verlinden European Patent Application, there are disclosed two embodiments of a system for using an integrated driven-type image setter to apply an image either to a coating applied to a printing cylinder or to a printing plate precursor which is then applied to a printing cylinder. Fig. 1 is a depiction of the first system. Fig. 2 is a depiction of the second.

In the first system, the master cylinder 110, which is the printing cylinder, is provided with an imaging element 150 that includes a printing surface 151. The master cylinder 110 is transparent to a radiation beam 161 from a deflecting device 160. The radiation beam is used to form the printing surface 151 on the master cylinder.

In the second system, as seen in Fig. 2, a printing plate precursor 250, which includes a non-transparent support 251 a radiation sensitive layer 252 and a printing surface 253, is placed on a hollow, radiation transparent exposure drum 210. The radiation sensitive layer 252 is exposed by the deflecting means 211 carried by the drum 210. The printing plate so formed is then transferred to the master cylinder 220.

The Examiner has asserted that Verlinden teaches providing a printing forme cylinder adapted for receiving printing plates, that previously used plates are removed and that a neutralizing device is usable to remove images and print from the printing

plates, as set forth at Column 8, lines 15-19. However, a careful reading of Verlinden shows that the Examiner's characterization is not correct. A complete reading of paragraph 30 of Verlinden clearly indicates that an imaging element is provided on the outer surface of the exposure drum by applying a coating of a radiation sensitive material to the outer surface of the drum. This is clearly a reference to the Fig. 1 system in which the exposure drum is the master cylinder 110. A coating means 140, as shown in Fig. 1, is used to apply the coating. After printing has been accomplished, the coating may be removed by using a scraper, a water jet, or the like. However, it is clear that the coating being removed is one that was applied to the surface of the master cylinder or printing cylinder 110.

While the second system of Verlinden shows, in Fig. 2, the use of a separate printing plate precursor 250 that has a radiation sensitive layer, and the transfer of the exposed precursor 250 to the master cylinder 220, there is no teaching or suggestion in Verlinden of any method or procedure for the reclamation of a precursor 250 once it has been used. The Examiner's' notation of the discussion at the top of Column 8 of Verlinden is only for the embodiment in which a coating is applied directly to the outer surface of a transparent cylinder.

The assertion that Verlinden teaches the application of a coating to a neutralized printing plate, as allegedly set forth at Column 8, lines 13-16, is also not correct. The coating of a radiation sensitive material is applied to the outer surface of the master cylinder 110 by the coating means 140. The coating may be subsequently removed but

any new coating will again be applied to the surface of the master cylinder 110. There is no teaching or suggestion in Verlinden that the precursor 250 is reused or reusable

Verlinden does not teach or suggest a printing plate neutralization device. Thus Verlinden cannot teach the delivery of used printing plates to such a device. The secondary reference to Koguchi shows a plate making device 1. The plates 3' exit from the plate making device 1 and are delivered to a printer 2. The printing plate 3' is conveyed to a printing plate supply device 21 of printer 2 either manually or by a conveyor. The printing plate supply device 21 is used for supplying the printing plate 3' to the plate cylinder 15 of the printer 2. The printing plate 3' can be removed from the printing cylinder 15 and can be recycled. This is done by exposing the plate 3' to active light. The plate 3' to be reused is removed from the plate cylinder 15 and is discharged through the printing plate supply section 21. It is conveyed to the plate material supply section 11 of the plate making device 1 either manually or by a conveyor.

Muth was cited as showing an off-press device for performing all plate-making functions. There is no discussion in Muth as to the nature of the plate preparation or what specific steps are taken there. Muth shows only that a device is usable to transfer a prepared plate from a printing plate preparation device 28 to a plate cylinder 1.

The combination of Verlinden, Koguchi and Muth do not teach or suggest the subject invention, as recited in amended claim 1. There is no teaching of a process for multicolor printing which includes the removal of used plates, the provision of a plate neutralization device, the application of a coating to the neutralized plates, the

securement of the neutralized and coated plates in proper registration in an exposure and development unit, the provision of new images to the neutralized and coated plate and the re-supply of the plate to the cylinder. Thus claim 1 as filed, and even more clearly as amended, is believed to be patentable.

Claim 5 has been amended and claims 3, 7 and 9 have been carried forward. With respect to claims 5 and 7, it is believed that these claims are patentable since they depend from believed allowable amended claim 1. The prior art cited and relied on by the Examiner does not show an automatic plate changing device. Koguchi shows a printing plate supply section 21. Muth shows a printing plate manipulation device. Neither shows an automatic plate changing device, as recited in claim 5.

Claims 3 and 9 were rejected as containing subject matter not described in the specification in such a way that one of skill in the art could make or use the subject invention. Specifically, the registration system and registration unit were asserted as not being described in such a way as to enable one of skill in the art to make or use the invention. However, at page 5 of the Office Action, the Examiner asserted that it would be obvious to one having ordinary skill in the art to provide a registration system/registration unit as claimed since one would always need to maintain proper registration. If the provision of a registration unit/registration system is something that is obvious to one of skill in the art, then a detailed description of such a unit/system need not be a part of the specification. If something is obvious to one of skill in the art, it need not be described in detail. The Examiner's rejection of claims 3 and 9 on this

basis is thus respectfully traversed.

In support of the assertion that registration units and registration systems are obvious to one of skill in the art, there are submitted herewith copies of U.S. Patent Nos. 4,679,502 and 5, 186,108. These are both examples of registration systems that are known in the art. Either could be used to accomplish the registration of a plate in the exposure and development unit recited in claim 1. The Examiner's rejection of these two claims is respectfully traversed.

Claims 2, 4, 6, 8 and 10 have been canceled. The Examiner's rejections of these claims is rendered moot by their cancellation.

The patent to Love, which was cited by the Examiner in the Office Action but not applied in the rejections of the claims, has been reviewed. Since it was not relied on, no further discussion thereof is believed to be required.

SUMMARY

The specification has been amended to correct several minor errors. No new matter is being added. Claims 1 and 5 have been amended. Claims 3, 7 and 9 have been carried forward. Claims 2, 4, 6, 8 and 10 have been cancelled. It is believed that all of the claims now pending in the subject patent application are patentable over the prior art references cited and relied on by the Examiner, taken either singly or in combination. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully submitted,

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